

for coupling the sections of the shank to each other. In this manner the travelling screw has a swivelled connection to the shank of the inner jaw.

- 5 A thimble 25 is rotatably arranged on an enlarged extension 12^a provided on the tubular shank 12 and its outer periphery is milled as shown in the drawings to facilitate gripping. The adjacent periphery of the
10 tubular shank is also milled. Means is provided for connecting the thimble to the travelling screw and includes a headed screw 26 engaged in a threaded opening provided in an extension 20^a of the travelling screw
15 and in an alined threaded opening provided in the thimble. The head of the screw 26 arranged within the wrench and the outer end of its shank is provided with a diametrical slot 26^a whereby it may be operated
20 upon by a screw driver or similar tool. The extension 20^a is provided with a longitudinal slot 20^b which extends from the outer end thereof to the threaded opening and it is also provided with a pair of bosses 20^c
25 struck from the material of the extension. The extension 20^a also presents an annular shoulder 20^d which engages the outer end of the tubular shank 12 to limit the inward movement of the travelling screw.
- 30 In assembling the wrench the section 17 of the shank of the inner jaw is mounted on the spindle 22 and the travelling screw is then inserted in the tubular shank, engaged with its threaded bearing and turned until
35 the inner section of the shank and the head and neck are alined with the opening 10^a of the body portion. The plate 18 is, of course, not in position at this time and the outer section 16 of the shank 15 and its inner jaw
40 14 are then slid into position. By this operation the sections of the shank 15 are coupled together as the head 23 is now confined in the recess defined by the complementary recesses of the sections. The only manner
45 in which this coupling may be broken down is by a lateral displacement of the section 16 and this is precluded by securing the plate 18 in position by means of its screws 19. The thimble is next positioned on the
50 wrench. This is accomplished by first threading the screw 26 into its opening from the interior of the extension 20^a, then sliding the thimble onto the extension 20^a and turning the screw 26 home by means of a
55 tool operating upon its slot 26^a.

In operation, the wrench is readily and easily adjusted to fit various sizes of work. The thimble 26 provides a means susceptible of receiving the full grip of the hand of the
60 operator and the turning thereof is thus greatly facilitated and the jaws may thus be brought to bear against the work with the proper degree of force. Moreover, all of the parts are readily accessible for purposes of lubrication and repair. The thim-

ble may be easily removed or the sections of the shank of the inner jaw may be easily disassociated for purposes either of lubrication or of repair.

I claim:—

- 70 1. In a wrench, a body portion, an outer jaw carried at one end of said body portion, a tubular shank carried at the other end thereof, said body portion having a polygonal opening extending therethrough, an inner jaw coacting with said outer jaw, a
75 shank carried by the inner jaw and slidably extending through the opening of the body portion, said shank consisting of sections having reduced extensions provided with
80 complementary recesses, and operating means for said jaws comprising a threaded bearing formed on said tubular shank, a travelling screw coacting with said threaded bearing, common means for transmitting
85 the motion of the screw to the inner jaw and releasably coupling the sections thereof including a spindle secured to the travelling screw, a head rotatably engaged in the complementary recesses and a neck connecting
90 said head and said spindle, a thimble rotatably carried by the tubular shank and connecting means between said thimble and said travelling screw.
- 95 2. In a wrench of the character described, coacting jaws, shanks carried by said jaws and telescoping within each other, one of said shanks comprising sections having complementary recesses and operating means for
100 said jaws including a threaded bearing carried by one of said shanks, a travelling screw coacting with said bearing, common means for transmitting motion of said screw to said jaws and coupling the sections including
105 a spindle secured to the screw, a head rotatably engaged in the recess and a neck connecting the head and the spindle, a rotatable thimble and connecting means between the thimble and the travelling screw.
- 110 3. In a wrench of the character described, coacting jaws, shanks carried by said jaws and telescoping within each other, one of said shanks comprising sections having complementary recesses and operating means for
115 said jaws including a threaded bearing carried by one of said shanks, a travelling screw coacting with said bearing, common means for transmitting the motion of said screw to said jaws and coupling the sections including
120 a spindle secured to the screw, a head rotatably engaged in the recess and a neck connecting the head and the spindle.
- 125 4. In a wrench of the character described, coacting jaws, a tubular shank connected with one of said jaws, a second shank connected with the other of said jaws and operating in said tubular shank and operating means for said jaws comprising a threaded
130 bearing formed on said tubular shank, a travelling screw coacting with said threaded